Frister+Rossmann

Cub

CUB 3: COMPACT LIGHTWEIGHT AUTOMATIC WITH BUILT-IN PRACTICAL STITCHES

CUB 4: COMPACT LIGHTWEIGHT SUPER-AUTOMATIC WITH BUILT-IN PRACTICAL STITCHES

INSTRUCTION MANUAL

This booklet has been written for you, to help you use and enjoy fully your F + R zigzag sewing machine.

Before you start to use this machine, please take a few minutes to study this booklet. You will find it will be time well spent in understanding your machine.

If you have any questions regarding the use of your sewing machine please do not hesitate to contact your supplier or ourselves.

Frister + Rossmann Sewing Machines,

Limited.

Mark Way,

SWANLEY.

Kent.

BR8 8NQ

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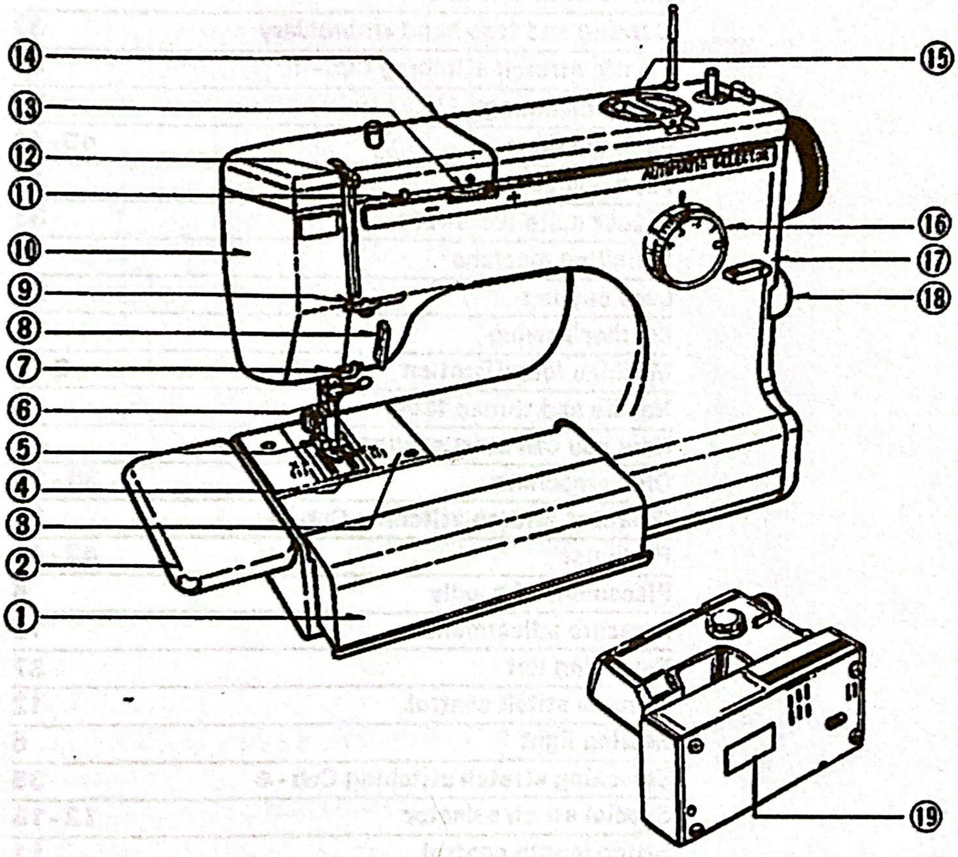
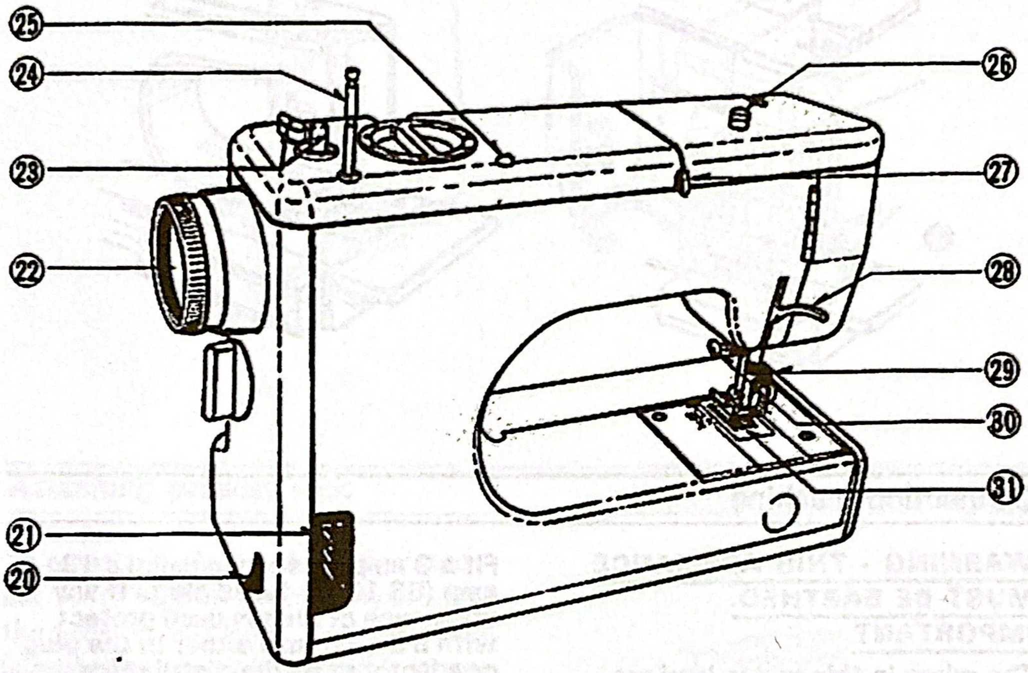
Machine identification



1. **Foldaway accessory box**
2. **Hinged extension**
3. **Needle plate**
4. **Feed dogs**
5. **Presser foot**
6. **Thread guide**
7. **Thread guide**
8. **Thread tension spring**
9. **Thread guide**
10. **Face cover**
11. **Thread guide**
12. **Thread take-up**
13. **Built-in tension regulator**
14. **Channel for simplified threading**
15. **Special stitch selector**
16. **Stitch width control**
17. **Reverse stitch control**
18. **Stitch length control**
19. **Nomenclature plate**

Machine identification

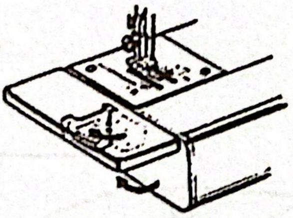


20. Light switch
21. Connector
22. Automatic clutch
23. Bobbin winder
24. Retractable spool pin
25. Hole for extra spool pin
26. Bobbin winder tension disc
27. Thread guide
28. Presser foot lever
29. Thread cutter
30. Needle clamp screw
31. Changeable needle plate

Installing machine

Lift hinged extension at the left side of machine bedplate.
For wider sewing space, turn accessory box toward you as shown in Fig. 2.

①



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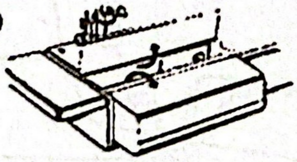
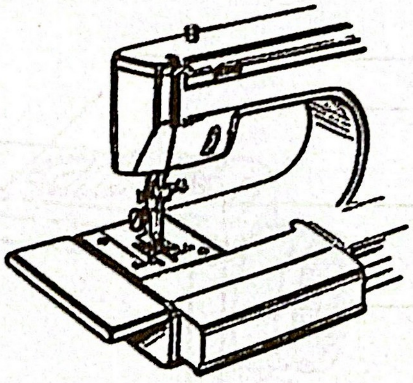




Connecting machine

WARNING - THIS APPLIANCE MUST BE EARTHED.

IMPORTANT

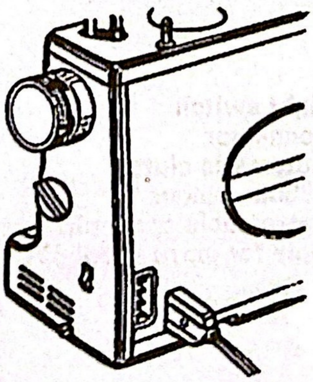
The wires in this mains lead are coloured in accordance with the following code:

Green - and - yellow:	Earth.
Blue:	Neutral.
Brown:	Live.

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured green - and - yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol ⏚ or coloured green or green - and - yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Fit a 3 amp fuse when using a 13 amp (BS 1363) fused plug. If any other type of plug is used protect with a 5 amp fuse either in the plug or adaptor or at the distribution board. If in doubt consult a competent electrician before use.

Push foot control plug into the connector socket at the back side of machine column. See illustration.



Sewing light

The sewing light is placed inside the face cover plate as shown, and illuminates the sewing area only.
It may be turned on or off by pushing light switch which is located on the side cover of machine column.
(See Fig. 1).

"DISCONNECT FROM MAIN SUPPLY BEFORE CHANGING BULB"

To change bulb, open the face cover plate by swinging it towards left, twist old bulb away from you and remove. Then insert new bulb.
(See Fig. 2).

Fig. 1

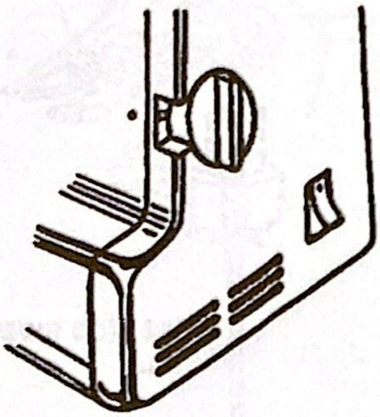
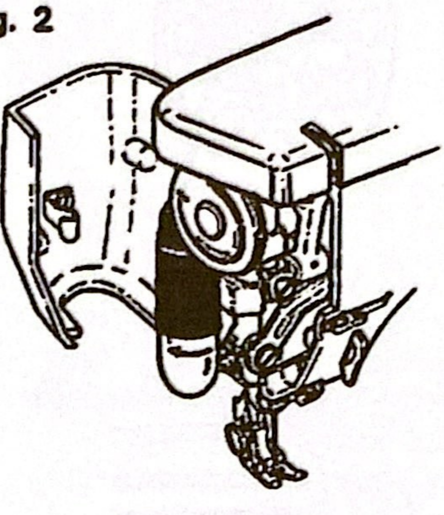
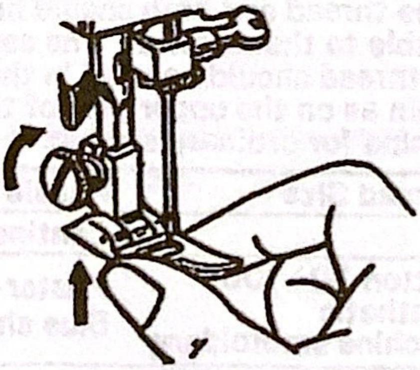


Fig. 2



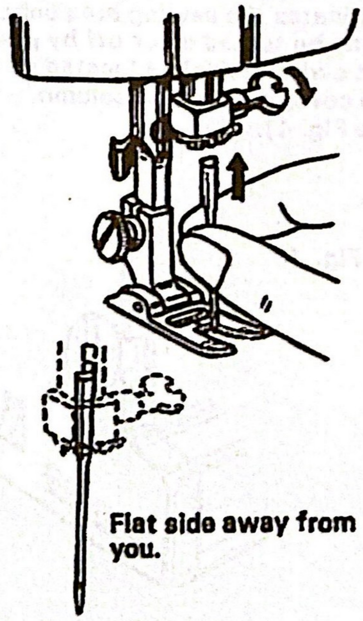
Attaching presser foot

To attach the foot, raise the presser bar to its highest position by raising the presser foot lever. Drop feed dog, loosen the presser foot thumb screw, choose the proper foot and insert from the front.
Tighten the screw using a large screwdriver and make sure that the foot is secure.



Placement of needle

Raise needle bar to its highest position by turning the handwheel toward you.
Take the steps as illustrated, keeping the flat side of needle away from you.



Flat side away from you.

Needle and thread table

Use System 705 needles. The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size thread should be used in the bobbin as on the upper part of the machine for ordinary sewing.

Never use a bent needle nor one with a blunt point.

For successful sewing of stretch fabrics use the stretch stitch foot with gold shank and stretch stitch needles with blue shank.

Thread Size	Needle Size		Fabric
	Continental	American	
Cotton 60 - 100 Synthetic Machine embroidery	Frister+Rossmann Blue shank needle		All stretch fabrics.
Cotton Synthetic Silk A Machine embroidery	70 (7) or 80 (8)	11 or 12	Sheer cottons, silk synthetics, fine laces, batiste, dimity.
Cotton 60 - 80 Mercerized 50 - 60 Synthetic	80 (8) or 90 (9)	12 or 14	Medium weight cottons, medium weight synthetics, poplin, seersucker, gingham, velvet, light weight woolens, linen.
Cotton 30 - 60 Mercerized heavy duty	100 (10)	16	Heavy weight cottons, medium to heavy weight woollens, denim.

(Note: New machines are fitted with American needle sizes.)

Winding the bobbin

Follow the procedures directed by 4 illustrations below.

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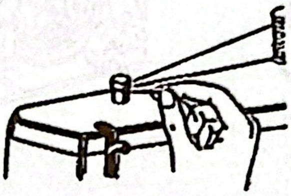

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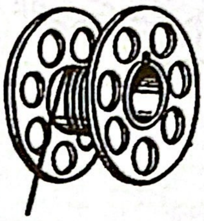
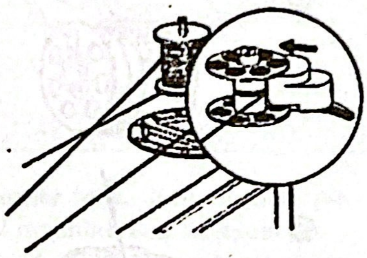


❸

Push latch.



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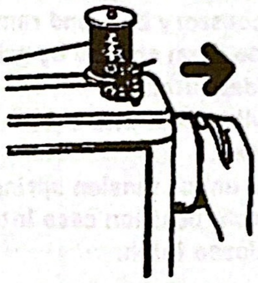
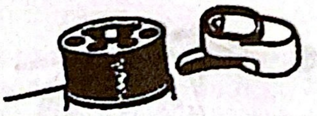


Release clutch by pulling hand wheel.

When bobbin is full, winding mechanism stops.

Push in hand wheel to return to stitching position.

❺



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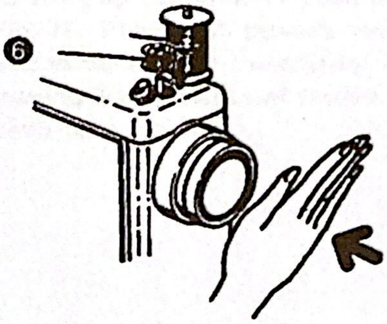

Threading the bobbin case

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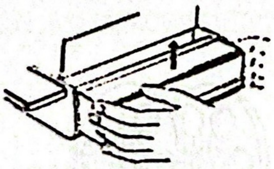

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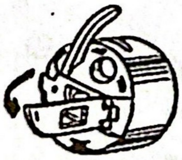

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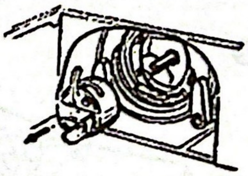
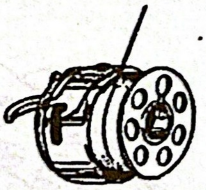


Raise needle to its highest position, remove accessory box, and remove bobbin case from shuttle by gripping spring loaded latch.
Insert a full bobbin into bobbin case as illustrated.
Pull thread under tension spring.
Holding latch, position case into shuttle, release latch.

❹



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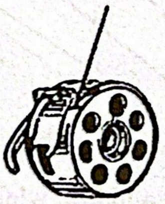

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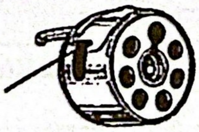

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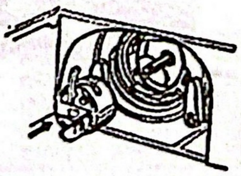


Threading of top thread

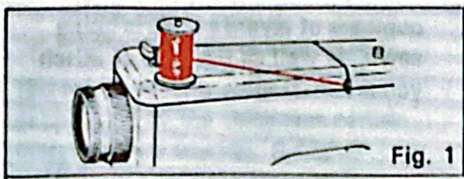


Fig. 1

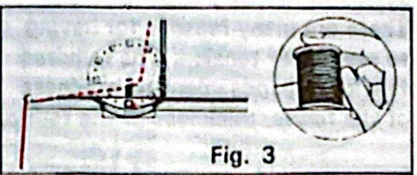


Fig. 3

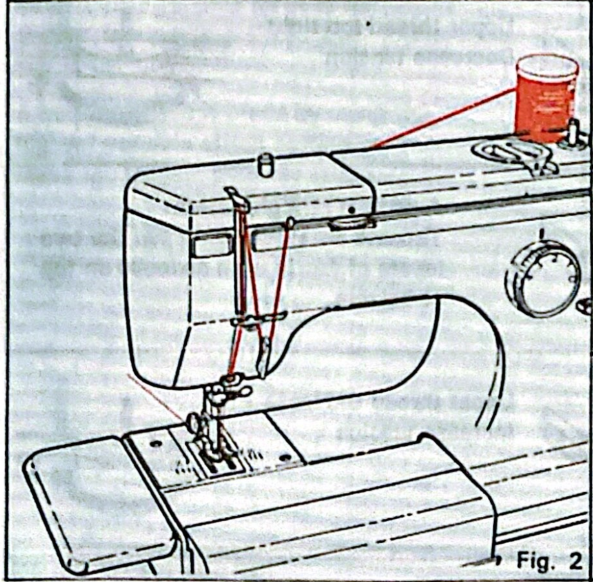


Fig. 2

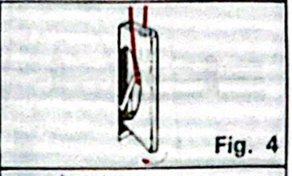


Fig. 4

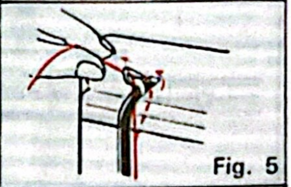


Fig. 5

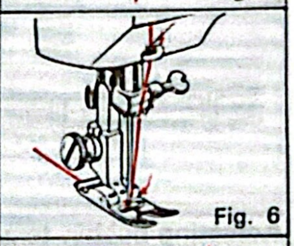


Fig. 6

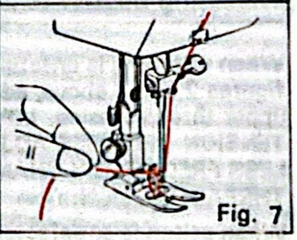


Fig. 7

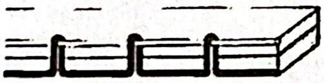
Raise presser foot. Pull up spool pin on top of machine and fit spool with thread coming from back of the spool. Holding the spool stationary with the right hand, draw thread through rear thread guide (See Fig. 1), into top threading channel towards you and then through the front thread guide (See Fig. 3).

Draw thread down and hook under thread tension spring (See Fig. 4), then up through thread guide and thread take-up lever as shown in Fig. 5.

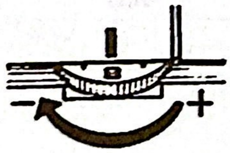
Continue to thread down through thread guides as shown in Figs. 2 and 6. The needle must be threaded from front to rear. After threading needle, bring up bobbin thread by raising presser foot, holding top thread loosely in left hand and rotating handwheel towards you one complete turn. Pull upper thread to bring up the bobbin thread (See Fig. 7). Place both threads under and to the back of the presser foot, leaving 3 to 4 inches of thread clear (See Fig. 6).

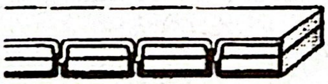
Adjusting top tensions

There are many reasons for having to reset your tension. The required tension depends upon the stiffness of the fabric, thickness of the fabric, numbers of layers of fabric being sewn, as well as the type of stitch you are making.

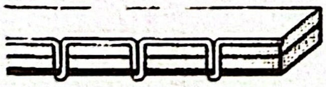


Upper thread too tight -
Decrease tension

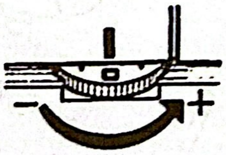




A perfect straight stitch:
Threads are locked between the two layers of fabric with no loops on top or bottom.



Upper thread too loose -
Increase tension



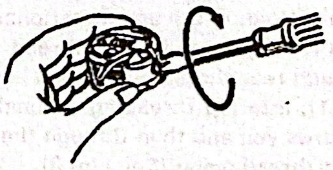
Adjusting bobbin tensions

When stitching is unsatisfactory in figures 2 and 3 above, adjust the upper thread tension. LOWER THREAD TENSION REQUIRES ADJUSTMENT LESS FREQUENTLY THAN THE UPPER THREAD TENSION.

When stitch is satisfactory, as in Fig. 1 and seam is badly puckered, the cause may be tight tensions and both upper and lower may be adjusted.

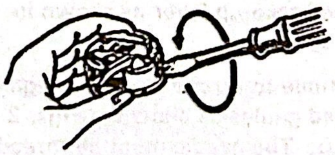
When adjusting the tension on the bobbin case, make slight adjustments with a screwdriver.

INCREASE TENSION



Turn clockwise.

DECREASE TENSION



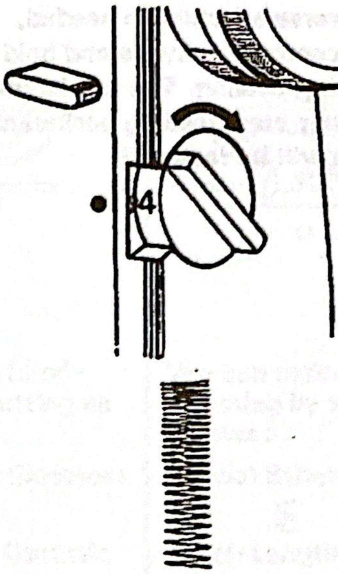
Turn counter clockwise.

Stitch length control

The stitch length control regulates the length of the stitch you select.

The stitch setting you use will be determined by the thickness of the fabric you are sewing. A higher stitch setting should be used for thicker fabric or more layers of fabric.

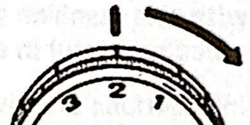
A basting stitch is made by using the highest possible stitch setting to make the longest possible stitch.



Stitch width control

This control regulates the width of the stitch you select. The higher the number, the wider the stitch. You may vary your zigzag and decorative stitching by adjusting this control to the setting you desire.

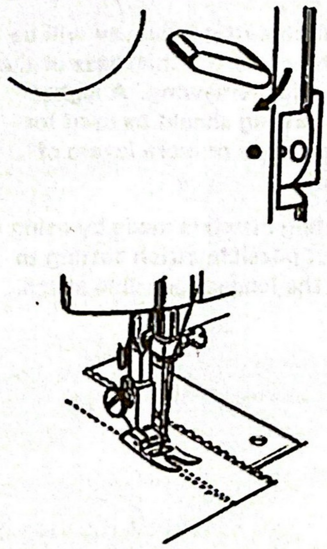
This control must be on "0" in order to do straight stitching.



Reverse stitch control

It is best to begin and end seams with a few stitches taken in reverse.

When reverse stitching is needed, turn the control clockwise and hold there during sewing. The fabric will immediately start feeding backwards and seam will be fastened.

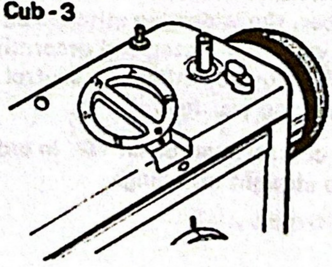


Special stitch selector

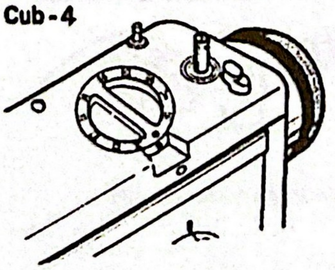
There are certain types of practical stitches you will use often in your home sewing. As you become familiar with this machine you will find this selector useful in sewing.

Detailed instructions are given on the next three pages.

Cub-3

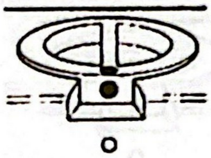


Cub-4



Special stitch selector Cub 3 only

Straight and zigzag stitch



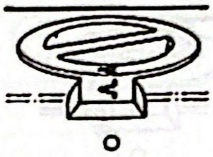
You can straight stitch and zigzag stitch by setting as follows:

Special Stitch Selector:
•

Stitch Length Control:
any number 0.5 to 4

Stitch Width Control:
any number 0 to 4

Blind Hem



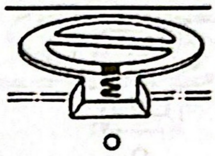
You can make blind hemming by setting as follows:

Special Stitch Selector:
≺

Stitch Length Control:
1.5 to 2

Stitch Width Control:
1.5 to 2

Fancy Hem



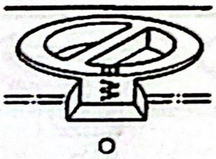
You can make fancy hemming by setting as follows:

Special Stitch Selector:
ξ

Stitch Length Control:
0.5 to 1

Stitch Width Control:
2 to 4

Mending Stitch



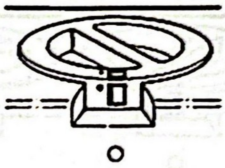
You can achieve fine mending stitches by setting as follows:

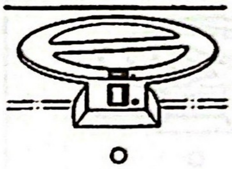
Special Stitch Selector:
≹

Stitch Length Control:
near 0.5

Stitch Width Control:
4

Buttonhole Making

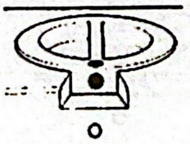




These settings are for buttonhole making. When you make buttonhole, the selector must be set to •▯ firstly. Further instructions are given on pages 26 & 27.

Special stitch selector Cub 4 only

Straight and zigzag stitch



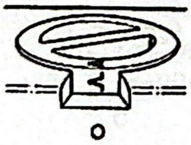
You can straight stitch and zigzag stitch by setting as follows:

Special Stitch Selector:
•

Stitch Length Control:
any number 0.5 to 4

Stitch Width Control:
any number 0 to 4

Blind Hem



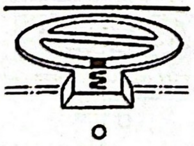
You can make blind hemming by setting as follows:

Special Stitch Selector:
≺

Stitch Length Control:
1.5 to 2

Stitch Width Control:
1.5 to 2

Fancy Hem



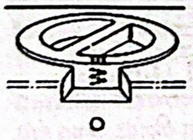
You can make fancy hemming by setting as follows:

Special Stitch Selector:
ξ

Stitch Length Control:
0.5 to 1

Stitch Width Control:
2 to 4

Mending Stitch



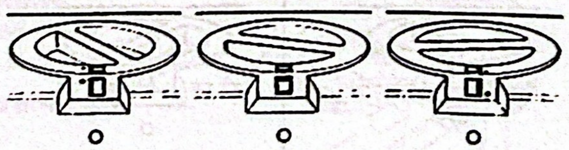
You can achieve fine mending stitches by setting as follows:

Special Stitch Selector:
≋

Stitch Length Control:
near 0.5

Stitch Width Control:
4

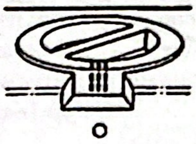
Buttonhole Making



These settings are for buttonhole making. When you make buttonhole, the selector must be set to ˙□ firstly. Further instructions are given on pages 26 & 28.

Special stitch selector Cub 4 only

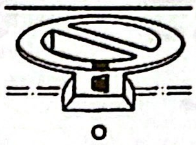
Stretch Stitch



You can stretch stitch by setting as follows:

Special Stitch Selector:
⁝⁝⁝
Stitch Length Control:
4
Stitch Width Control:
0 to 3

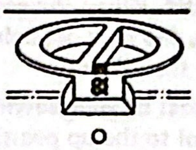
Elastic Stretch



You can make elastic stretch stitching by setting as follows:

Special Stitch Selector:
▨
Stitch Length Control:
near 3
Stitch Width Control:
near 3

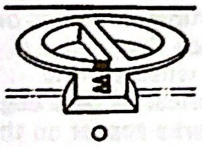
Smocking Stretch



You can make smocking stretch stitching by setting as follows:

Special Stitch Selector:
§
Stitch Length Control:
near 3
Stitch Width Control:
near 3

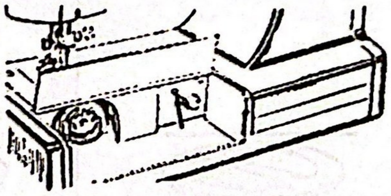
Overcast Stretch



You can make overcast stretch stitching by setting as follows:

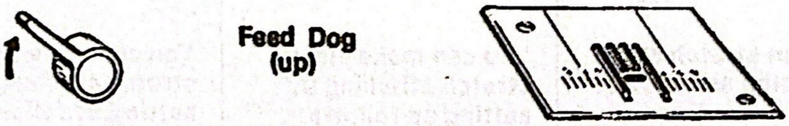
Special Stitch Selector:
▨
Stitch Length Control:
near 3
Stitch Width Control:
near 3

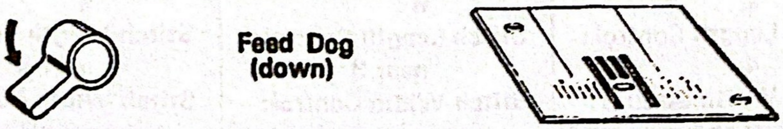
Feed dog control



The feed dog control is located on the machine behind accessory box. There are a few times when you want to control the feeding of the fabric yourself. When the control is pushed down, the feed dogs drop and do not move the fabric.

For most of your sewing, turn the control to the up position.





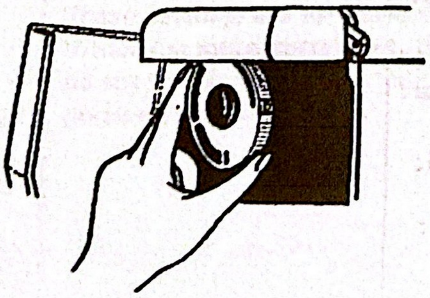
Pressure adjustment

"DISCONNECT FROM MAINS SUPPLY BEFORE ADJUSTING"

The pressure on the presser foot is regulated by turning the dial of this regulator which is situated in face cover plate (See illustration).
To increase the pressure, turn the dial clockwise, until a suitable pressure is obtained.
Make certain presser foot lever is in the up position during adjustment.

Insufficient pressure may cause poor feeding of the fabric, skipped stitches, or difficulty in guiding the fabric.

When sewing multiple thickness or heavy fabric, reduce the pressure. Increase pressure when sewing lighter weight fabrics. If feed dog or presser foot marks appear on the fabric, reduce the pressure.



Zigzag and straight stitching plate Cub 4 only

Needle plate insert

You are provided with two needle plate inserts. The one with the wide oval hole is to be used for all zigzag stitching. The one with the small round hole is for regular straight stitching or straight stretch stitch sewing.

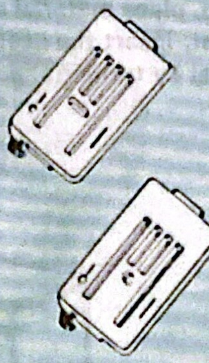


Fig. 1

Changing needle plate inserts

1. Raise needle to its highest position and raise presser foot.
2. Open bed cover plate.
3. Remove accssory box from the machine, and push a spring under the plate as shown to release the needle plate insert.
4. Remove needle plate insert by placing thumb under edge of plate.
5. Replace the needle plate insert positioning as shown in Fig. 3.
6. Push needle plate insert down to lock into place. Reposition the accessory box and bed cover plate.

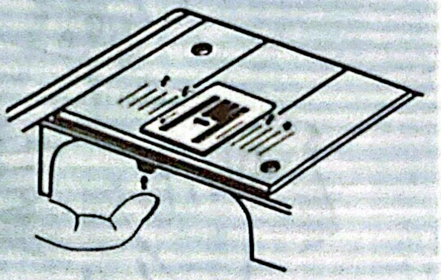


Fig. 2

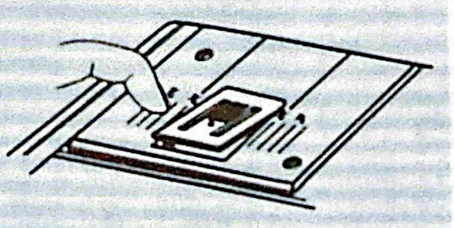
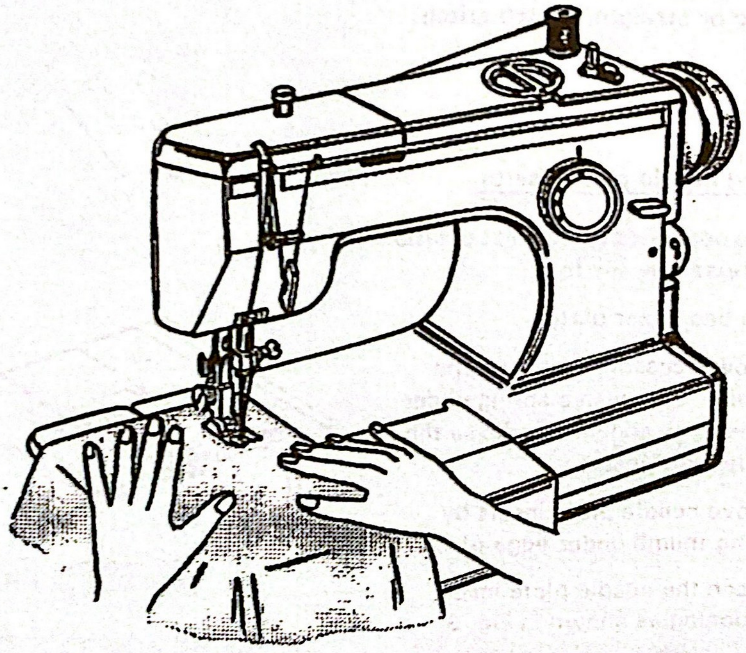


Fig. 3

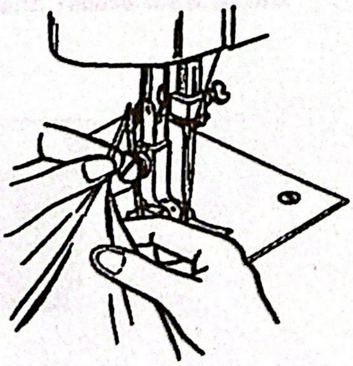
Now you can start sewing

Push the plug onto the connector, lift hinged extension, turn accessory box toward you, place material under the presser foot, insert the needle into the material by turning the handwheel toward you, lower presser foot and start sewing.



To remove the work:

Draw material to the rear and cut off excess thread with the thread cutter. (See illustration.)

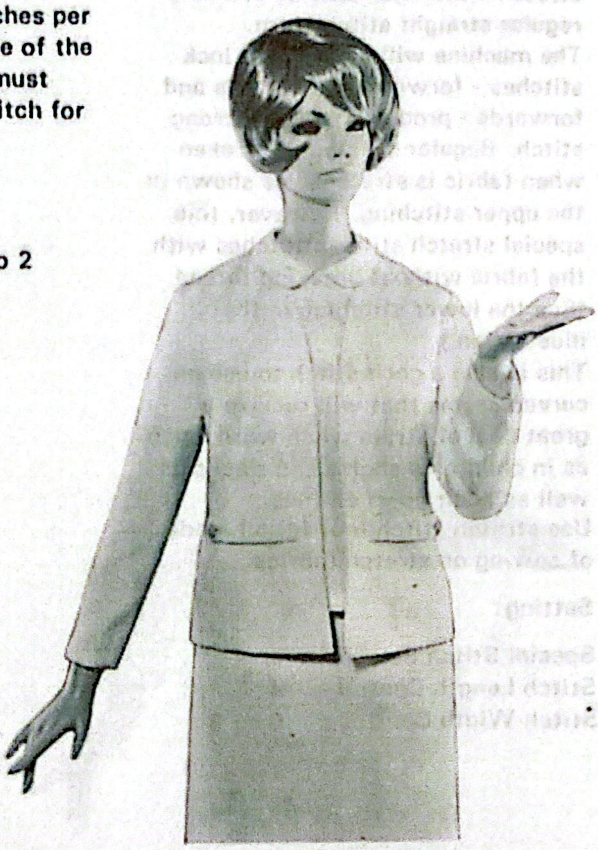


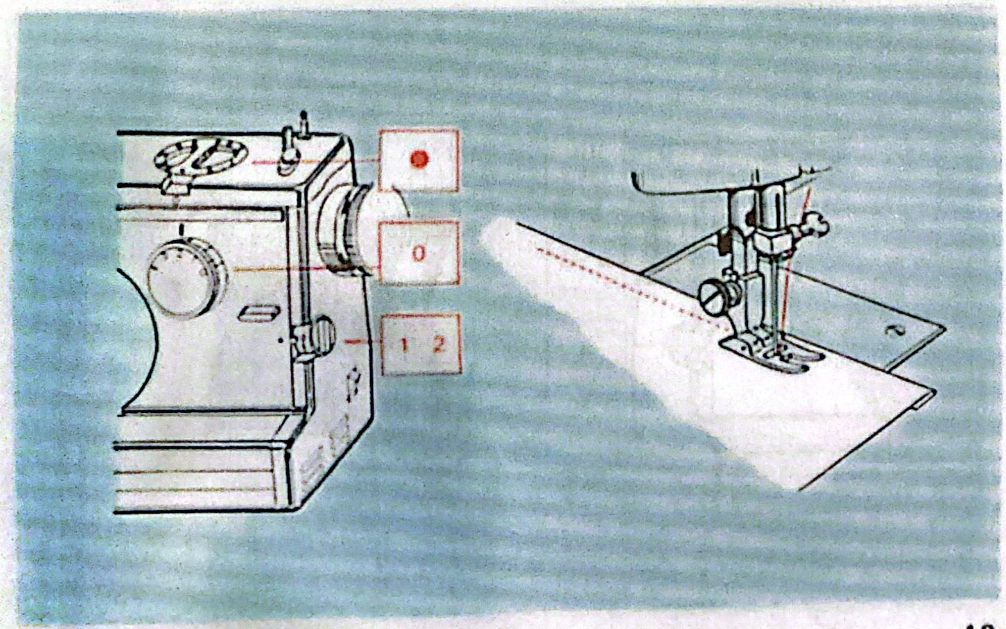
Straight stitching

This is the basic stitching that holds the garment together. The best length stitch to use for medium weight fabrics is 10-12 stitches per inch. This is the middle range of the Stitch Length Control. You must remember to lengthen the stitch for heavier fabrics.

Setting:

Special Stitch Selector : •
Stitch Length Control : 1 to 2
Stitch Width Control : 0



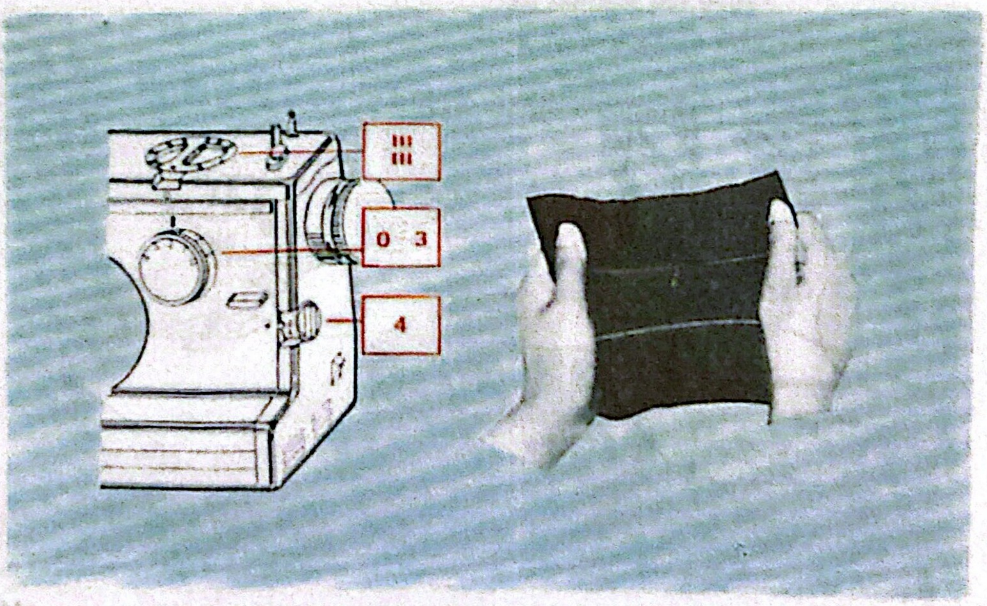


Stretch stitching Cub 4 only

This special stretch stitch is ideally suitable for knitted fabrics and other stretch materials. Sew as you do a regular straight stitch seam.
The machine will make triple lock stitches - forwards, backwards and forwards - producing a very strong stitch. Regular stitching is broken when fabric is stretched as shown in the upper stitching. However, this special stretch stitch stretches with the fabric without breaking thread. (See the lower stitching in the illustration.)
This is also a good stitch to use on curved seams that will receive a great deal of strain when worn, such as in children's shorts and slacks as well as adult sport clothes.
Use stretch stitch foot for all kinds of sewing on stretch fabrics.

Setting:

Special Stitch Selector : ⁝⁝⁝
Stitch Length Control : 4
Stitch Width Control : 0 to 3

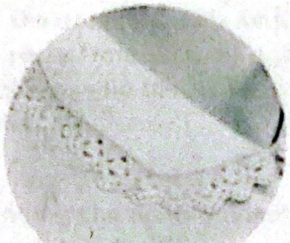


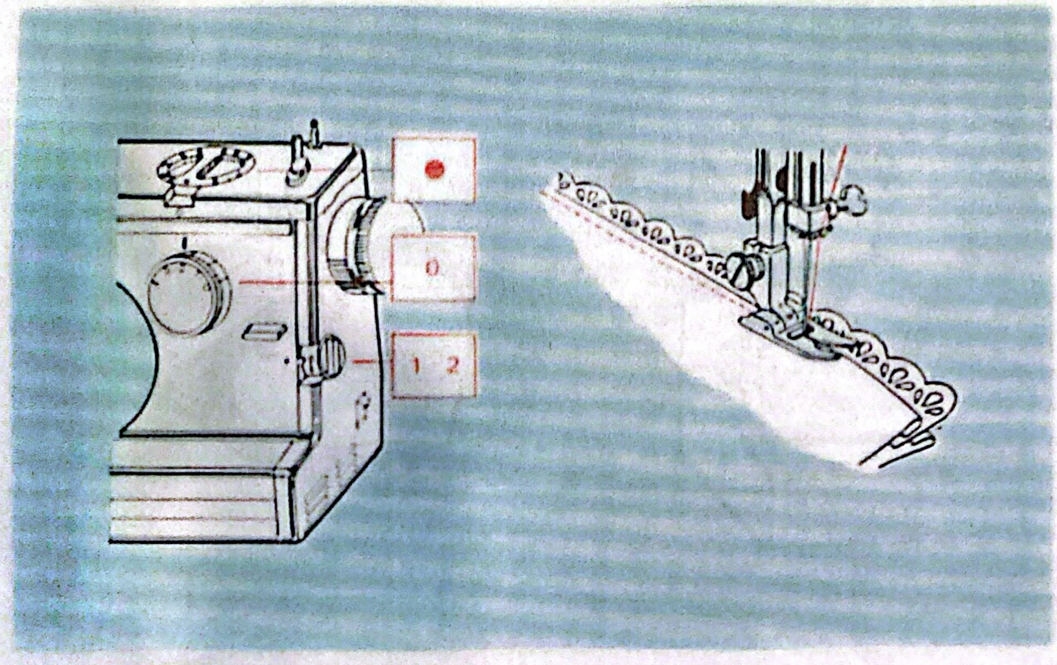
Lace sewing

Keep lace between fabrics as shown and continue stitching

Setting:

Special Stitch Selector: ●
Stitch Length Control: 1 to 2
Stitch Width Control: 0



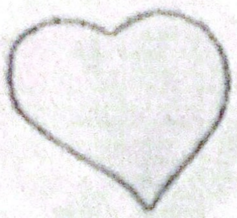


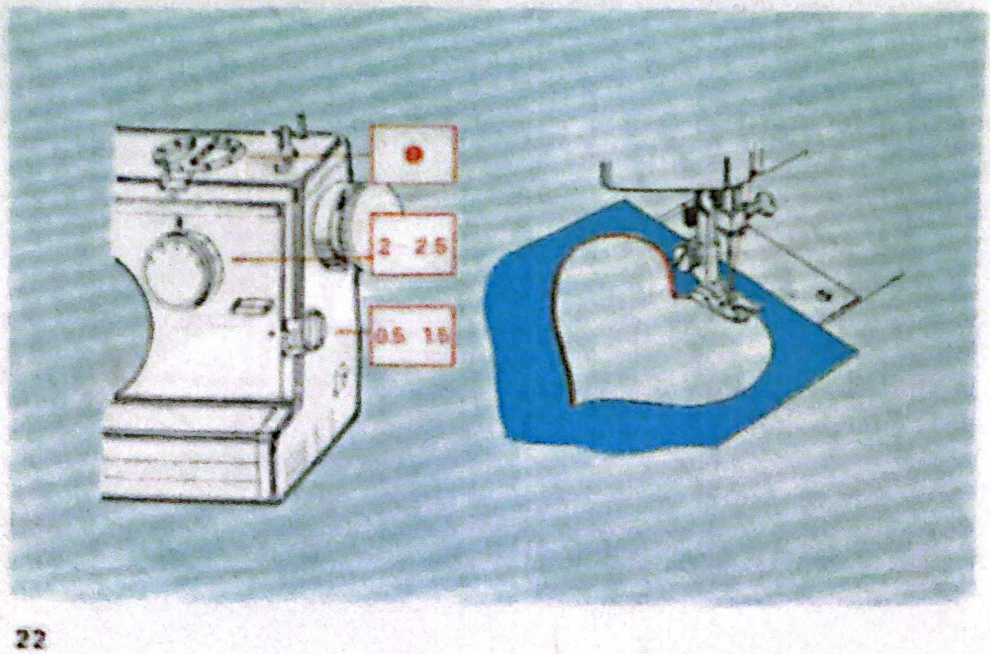
Appliqueing

Any applique design can be applied to your garment.

Setting:

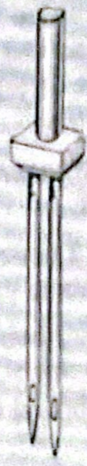
Special Stitch Selector: ●
Stitch Length Control: 0.5 to 1.5
Stitch Width Control: 2 to 2.5





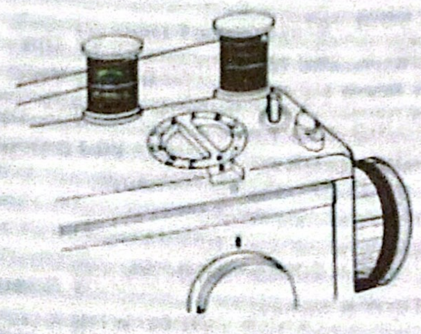
The double needle Cub 4 only

The machine is set exactly the same as when using the single needle with one important exception. The Stitch Width Control must never be set beyond 2½. The double needle will be broken if a wider stitch is used.



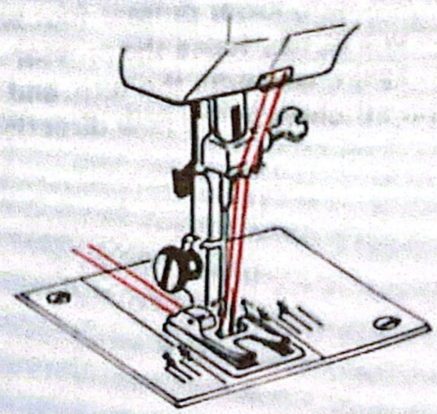
Placement of needle:

Raise the needle bar to its highest position and loosen the needle screw. Hold the double needle with the flat side away from you. Slip the needle into the needle bar as far as it will go. Tighten the screw.



Threading the double needle:

Place the extra spool pin supplied in the right position of the top cover by screwing.
Place a spool of thread on each spool pin as shown. Draw both threads through upper threading path.
Continue threading as you do for single needle sewing.
Draw one thread through each side of the double thread guides and through each needle from front to back. Turn hand wheel manually once to be sure needle will clear the presser foot. Pick up bobbin thread as for single needle sewing. Pull threads to back of foot and start to sew.

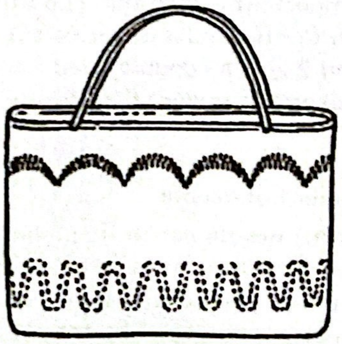


Remove extra spool pin before replacing machine into carrying case.

Double needle stitching Cub 4 only

You may find that you would like to use the double needle for designs. Whenever you use the double needle even for straight stitching, remember the following things:

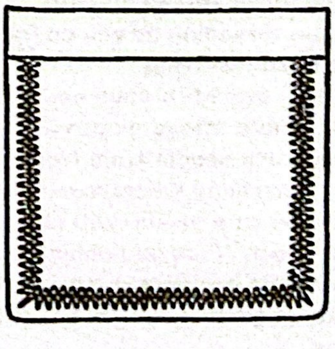
- Use a zigzag presser foot and needle plate slot.
- Always make a practice design on a scrap of the fabric you plan to use.
- Start with a full bobbin and plenty of thread on the spool to avoid running out of thread in the middle of your design.



For your reference of uses of the designs, see the illustration. You will soon be combining designs and creating new uses when you become familiar with your machine.

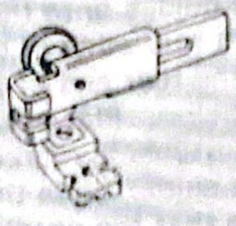
Turning a corner with double needle:

To turn a square corner with a double needle, stop stitching with the longer needle tip just piercing the fabric. Raise the presser foot, shift fabric half the turn, lower presser foot and take one stitch. Raise the presser foot again, complete the turn, and begin stitching in the new direction.



Zipper sewing

This foot is used to insert a zipper or to cover cording. Attach the Zipper Foot.



Regular zipper:

This foot is reversible so you can stitch to the right or to the left of a zipper or a cord. To sew on the left place the foot to the left of the needle so that the needle passes through the opening on the right side of the foot. (See Fig. 1).
To sew on the right, adjust the foot so that it is to the right of the needle with the needle passing through the opening on the left side of the foot.

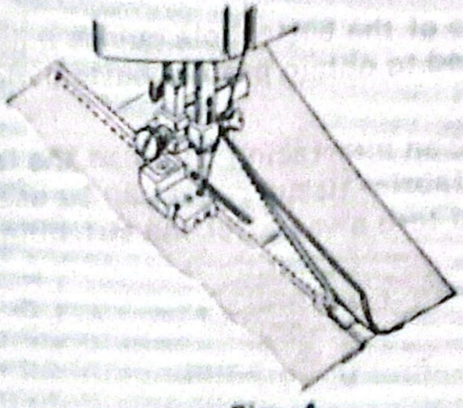


Fig. 1

Concealed zipper:

To sew on the left of the zipper, use the right groove on bottom of foot. (See Fig. 2). To sew on the right of the zipper, use the left groove on bottom of foot.

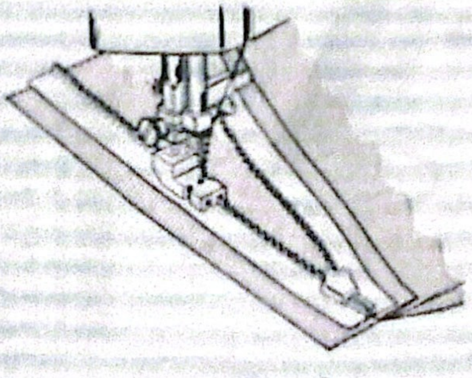


Fig. 2

Cording:

To make cording for slipcovers, etc., cover the cord with a strip of bias from the fabric you are using. Enclose the cord in the bias strip. (See Fig. 3).

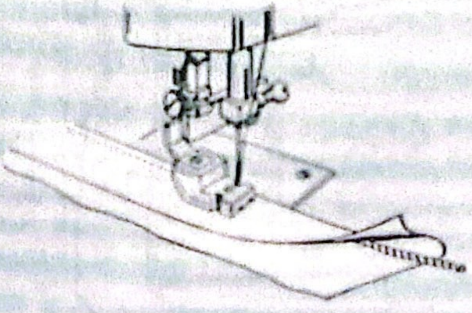
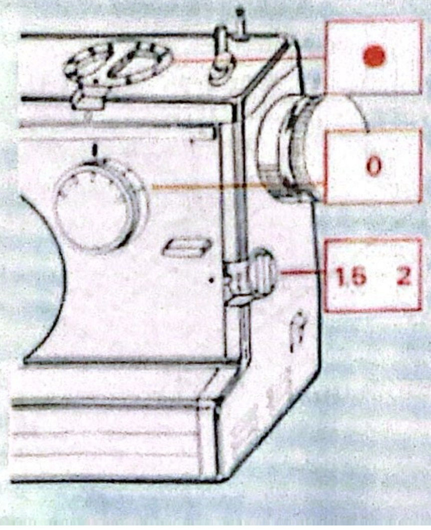


Fig. 3

Set your machine as follows:

Special stitch selector: •
Stitch length control : 1.5 to 2
Stitch width control : 0



Buttonhole making Cub 3 and Cub 4

Carefully mark the buttonhole length on your garment. Mount one of the buttonhole guides onto the presser foot so that rear edge of presser foot is at the rear end of the guide as shown below. Place the fabric with the buttonhole marked under the buttonhole guide. Slide the guide foot forward so that the needle pierces the fabric at the beginning of the buttonhole.

One of the buttonhole guides must be fixed to obtain perfect buttonholes.

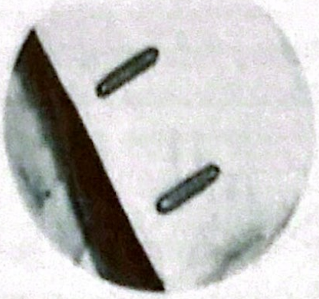
Use an interfacing between the layers of fabric - tissue paper can be used and torn away after the stitching.

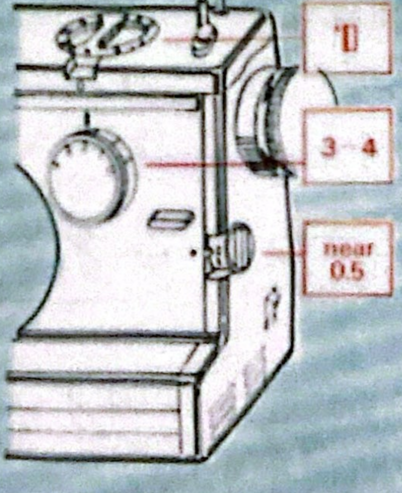
Set your machine as follows.

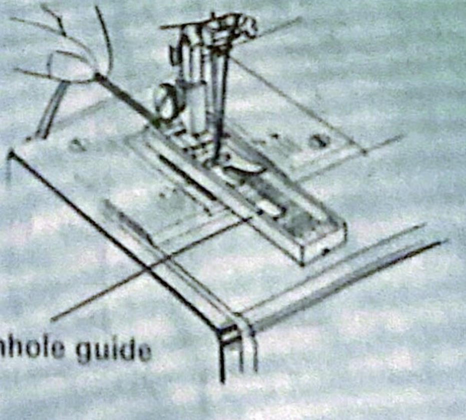
Special stitch selector: See pages 27 and 28.

Stitch length control: Between 0 and 1

Stitch width control: 3 to 4







Buttonhole making Cub 3 only

Always make a practice buttonhole on a piece of the fabric to be used in the garment. Try the buttonhole with the button you will use.

1. Set special stitch selector to •□ Stitch forward until you reach the front marking of your buttonhole. Stop sewing at the left stitch and then raise needle at its highest position by turning handwheel toward you manually.

2. Set special stitch selector at the red dot and bartack several times Stop sewing at the right stitch. Raise needle at its highest position as in step 1.

3. Set special stitch selector at □. and continue sewing until needle reaches beginning of your buttonhole. Stop sewing at the right stitch and then raise needle as in steps 1 & 2.

4. Set special stitch selector at the red dot again and bartack to complete buttonhole.

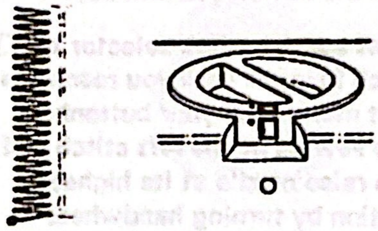
If the forward stitching does not exactly match the reverse stitching, slightly adjust the stitch length control during forward sewing.

Also, if making a smaller buttonhole than maximum length, drop feed dog to bartack in steps 2 and 4.

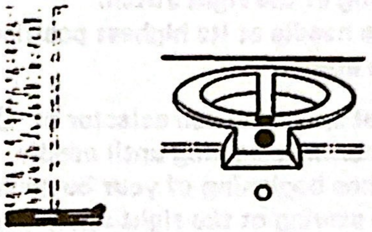
To make firm well stitched buttonholes in heavier fabrics, repeat only steps 1 and 3.

You have been provided with a standard buttonhole guide for making buttonholes.

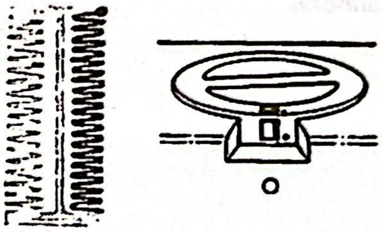
❶



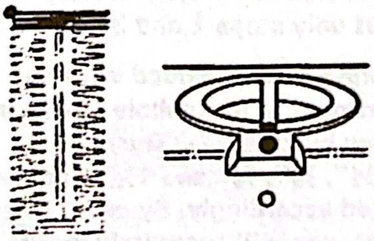
❷



❸



❹



Buttonhole making Cub 4 only

Always make a practice buttonhole on a piece of the fabric to be used in the garment. Try the buttonhole with the button you will use.

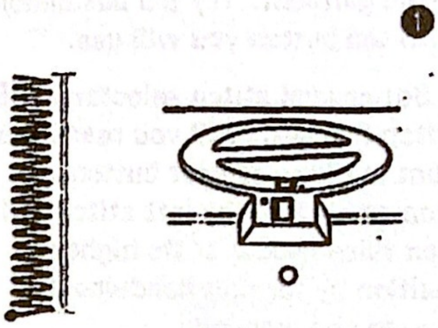
1. Set special stitch selector to '□ Stitch forward until you reach the front marking of your buttonhole. Stop sewing at the left stitch and then raise needle at its highest position by turning handwheel toward you manually:

2. Set special stitch selector to □ and bartack several times. Stop sewing at the right stitch. Raise needle at its highest position as in step 1.

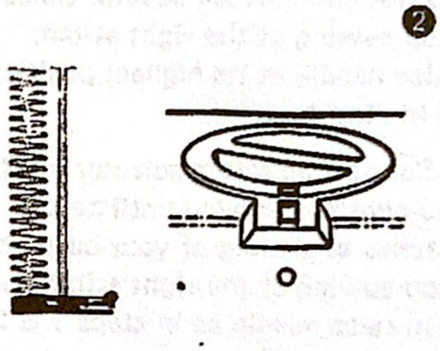
3. Set special stitch selector at □. and continue sewing until needle reaches beginning of your buttonhole. Stop sewing at the right stitch and then raise needle as in steps 1 & 2.

4. Set special stitch selector to □ again and bartack to complete buttonhole.

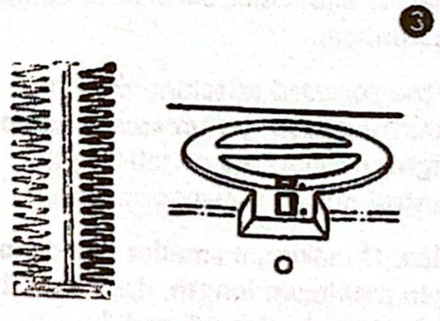
①



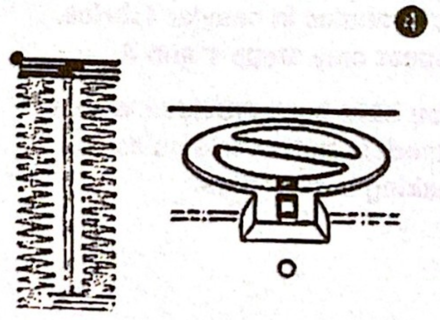
②



③



④



To make firm well stitched buttonholes in heavier fabrics, repeat only steps 1 and 3.

You have been provided with an assortment of buttonhole guides in making buttonholes. They are ⅜", ½", ⅝", 13⁄16" and 1 1⁄16" and are marked accordingly. By using these guides, you will accurately make identical bar tacked buttonholes every time.

Button sewing

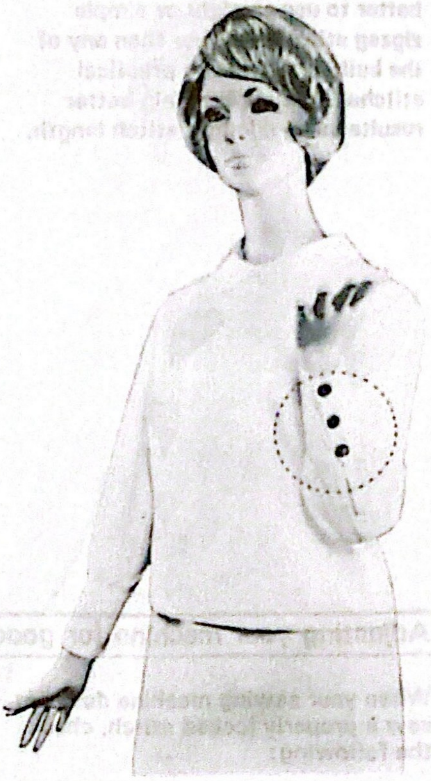
Use button sewing foot.

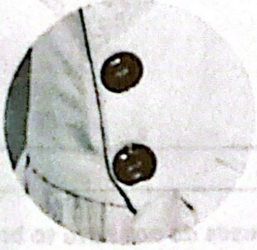
Adjust stitch width so that the needle point enters holes of the button. Align two holes of button with slot of presser foot and lower foot to hold the button securely.

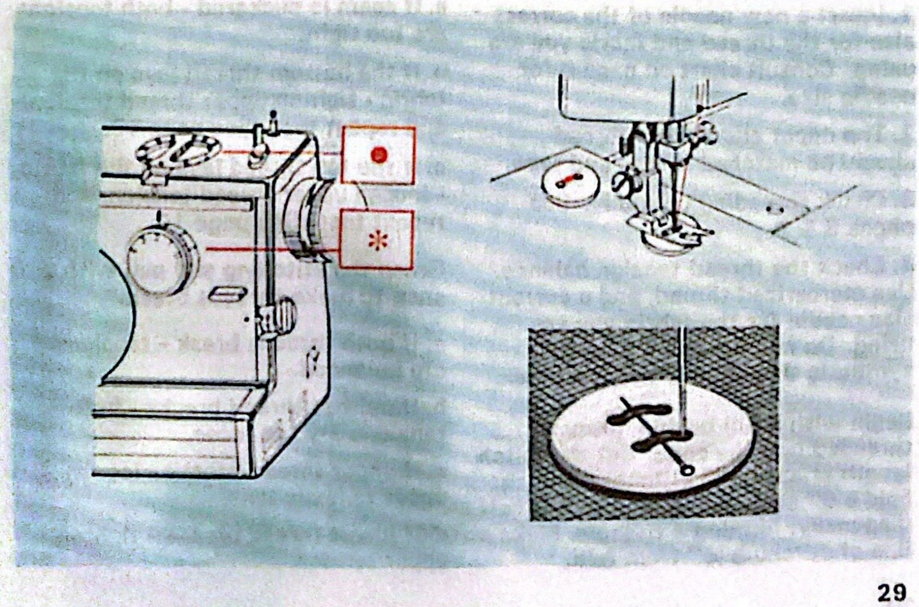
Setting:

Special Stitch Selector : ●
Stitch Length Control : 0
Stitch Width Control :
* width between holes of button
Feed Dog : DOWN

When sewing on a flat button, place needle between holes of button as shown below.

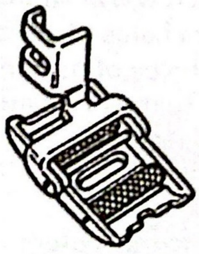


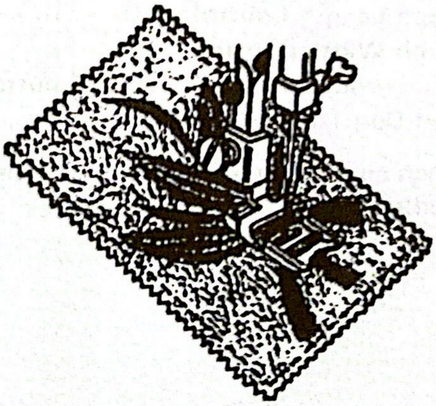




Leather sewing Cub 4 only

Use the roller foot when sewing leather, rubber or plastic materials. When sewing such materials it is better to use straight or simple zigzag stitching rather than any of the built-in automatic practical stitches. You will obtain better results using a longer stitch length.





Adjusting your machine for good stitches

When your sewing machine does not sew a properly locked stitch, check the following:

1. Insert a new needle of the correct size for the thread and fabric you are using. Consult chart on page 6 for needle size.
2. The upper and bobbin thread should be matched in size and type.
3. Check threading carefully. See pages 8 & 9.
4. Check the thread tension balance. Use mercerized thread, and a correct size needle for the fabric you are using. Do not try this test with synthetic thread as it will not break.

Begin with a full bobbin, properly threaded into the case. Set the stitch length at about 12 stitches per inch. Fold a 6" square of your fabric in half diagonally, forming a triangle. Make a line of stitching ½" from fold.

Both threads do not have to break at the same place, but they should break on the same snap.

a. If seam is puckered - both tensions are too tight.

b. If the bottom thread lays on the fabric - tighten upper thread tension, and repeat test. See page 10.

c. If the top thread lays on the fabric - loosen upper thread tension, and repeat test. See page 10.

Grasp the stitching and pull with a snap to make threads break.

a. If both threads break - tensions are balanced.

b. If neither thread breaks - both tensions are too loose.

c. If upper thread breaks - loosen upper tension.

d. If lower thread breaks - tighten upper tension

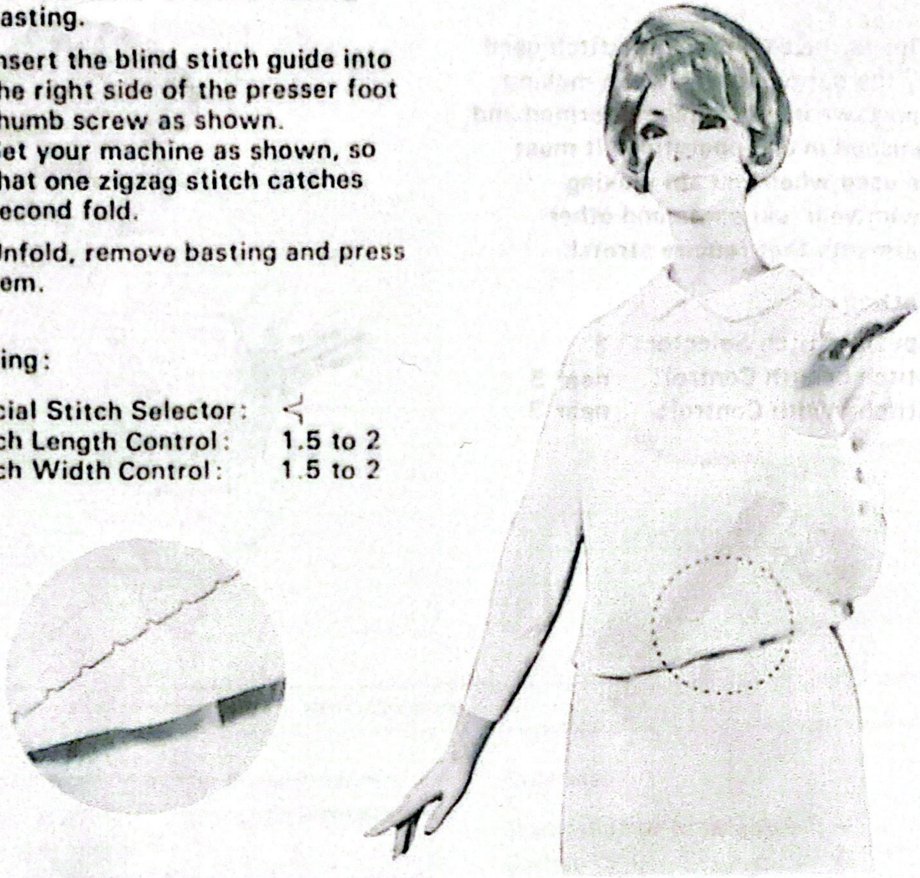
Blind stitching

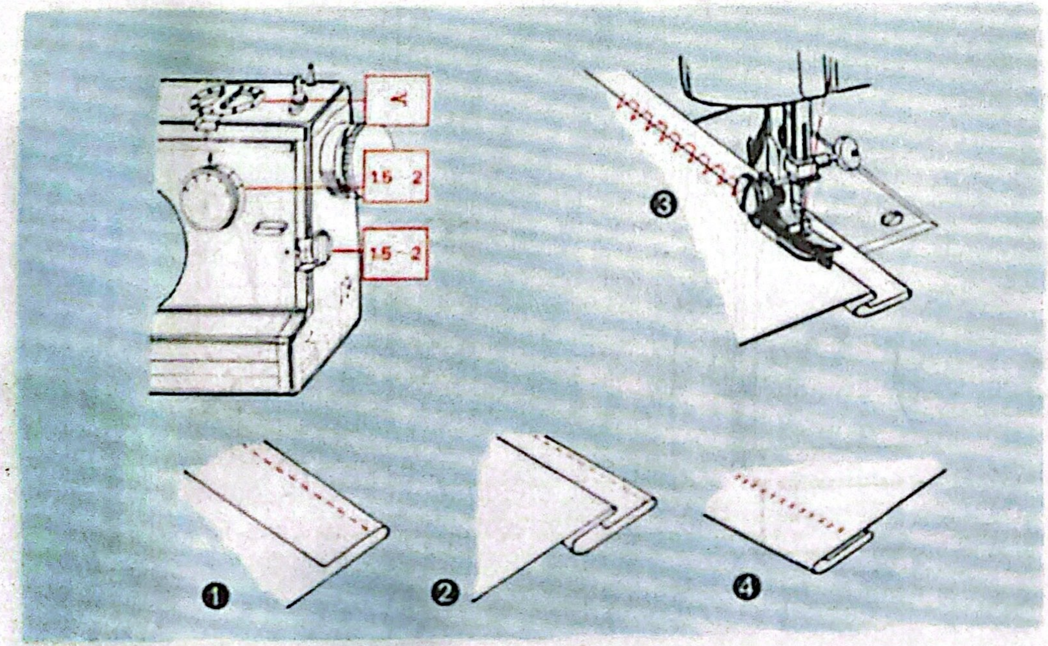
Follow the instructions below.

1. Fold material and baste.
2. Make second fold overlapping basting.
3. Insert the blind stitch guide into the right side of the presser foot thumb screw as shown.
   Set your machine as shown, so that one zigzag stitch catches second fold.
4. Unfold, remove basting and press hem.

Setting:

Special Stitch Selector: ≺
Stitch Length Control: 1.5 to 2
Stitch Width Control: 1.5 to 2





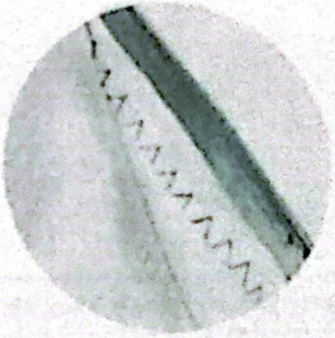
Overcasting stretch stitching Cub 4 only

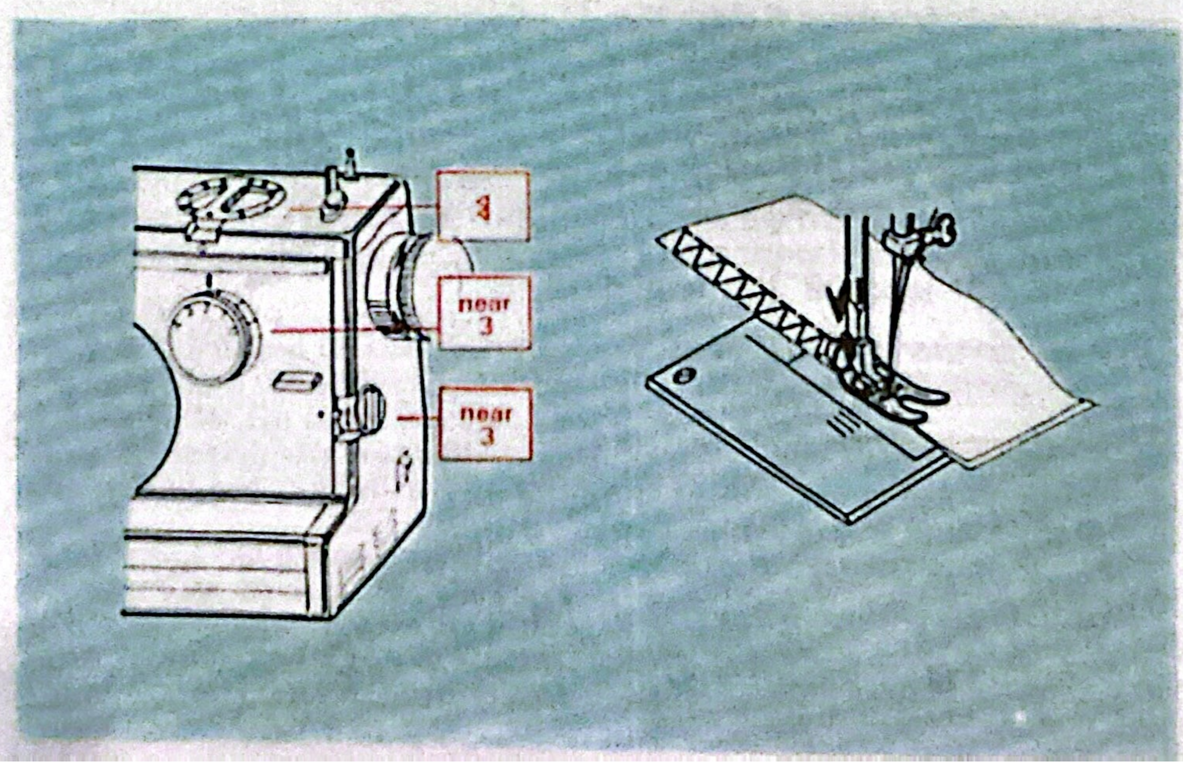
The raw edge of each seam allowance can be overcast to prevent further ravelling.

This is the same type of stitch used by the garment industry in making sportswear. The seam is formed and finished in one operation. It must be used when you are making swimwear, ski pants and other garments that require stretch.

Setting:

Special Stitch Selector: ⦚
Stitch Length Control: near 3
Stitch Width Control: near 3



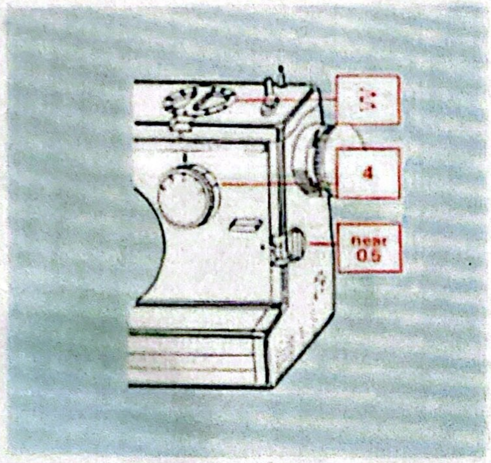


If your suits were torn

Mending stitch is useful in sewing straight or three cornered tear.

Setting:

Special Stitch Selector: ⁝:
Stitch Length Control: near 0.5
Stitch Width Control: 4

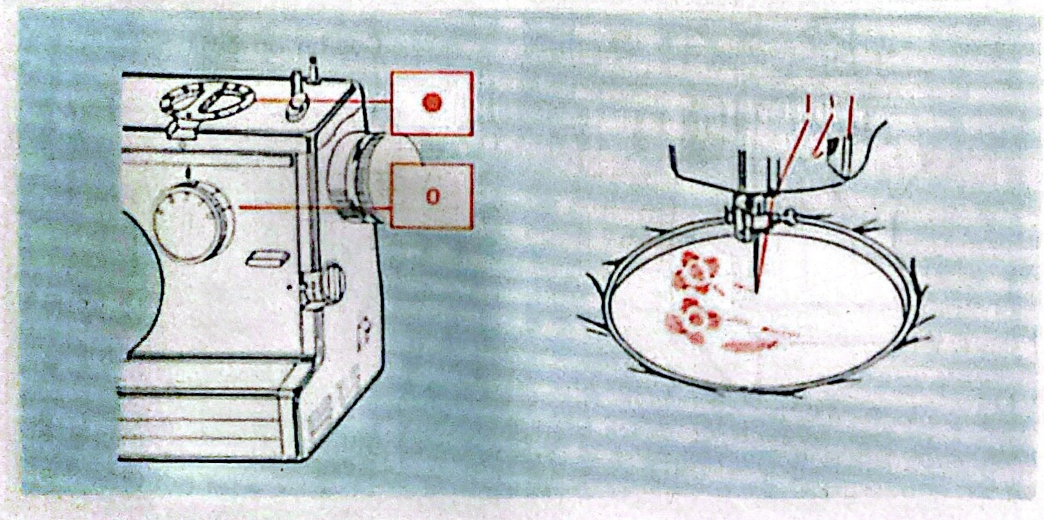


Darning and free hand embroidery

Stretch fabric between embroidery hoops and start sewing at a medium machine speed.
Move the fabric fast for long stitches, slowly for short stitches.

Setting:

Special Stitch Selector : •
Stitch Width Control : 0
Feed Dog : DOWN
Remove presser foot.

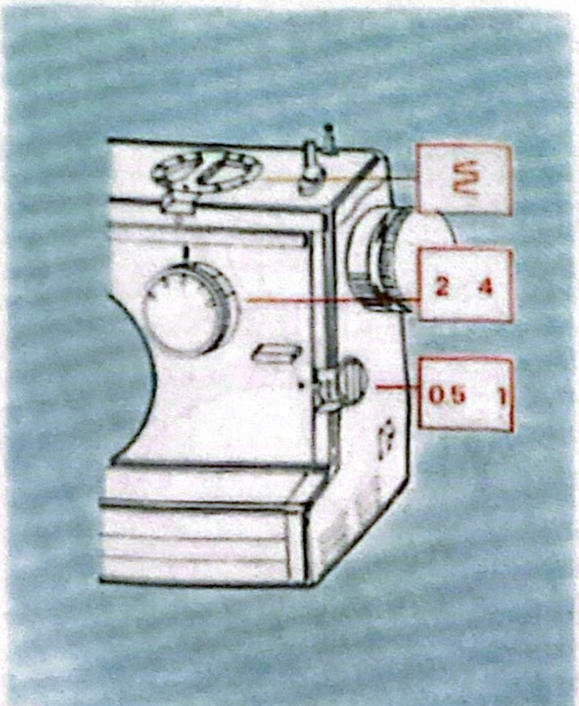


Fancy hemming

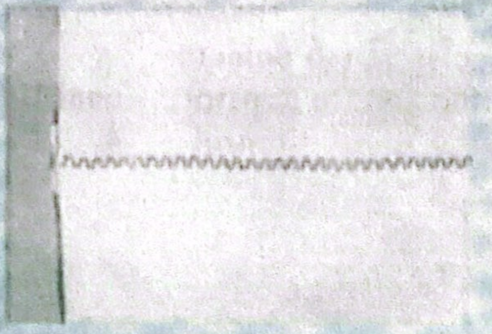
This attractive stitch is used for attaching lace, combining two pieces of fabric, decorating pocket cover and so on as shown. As you become familiar with your machine, you will be able to find out new uses of this stitch.

Setting:

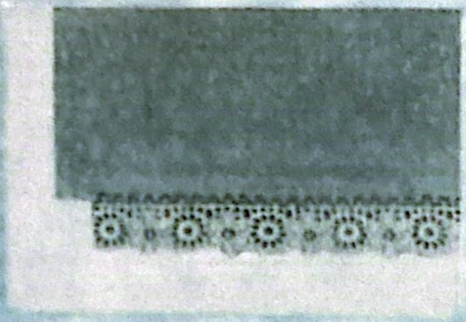
Special Stitch Selector : ≶
Stitch Length Control : 0.5 to 1
Stitch Width Control : 2 to 4



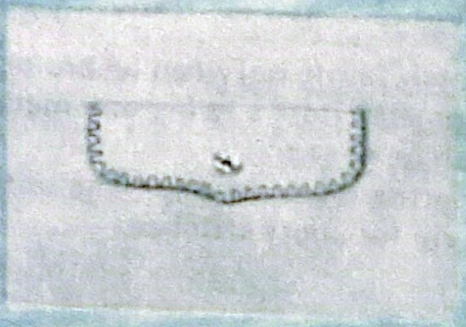
Combining fabrics



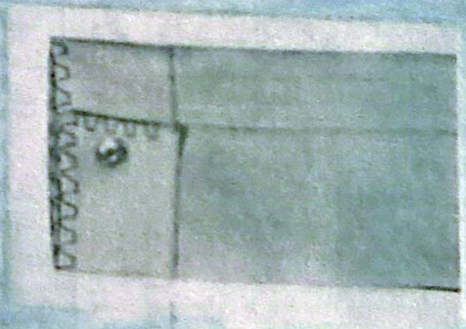
Attaching lace



Design on pocket



Design on cuff



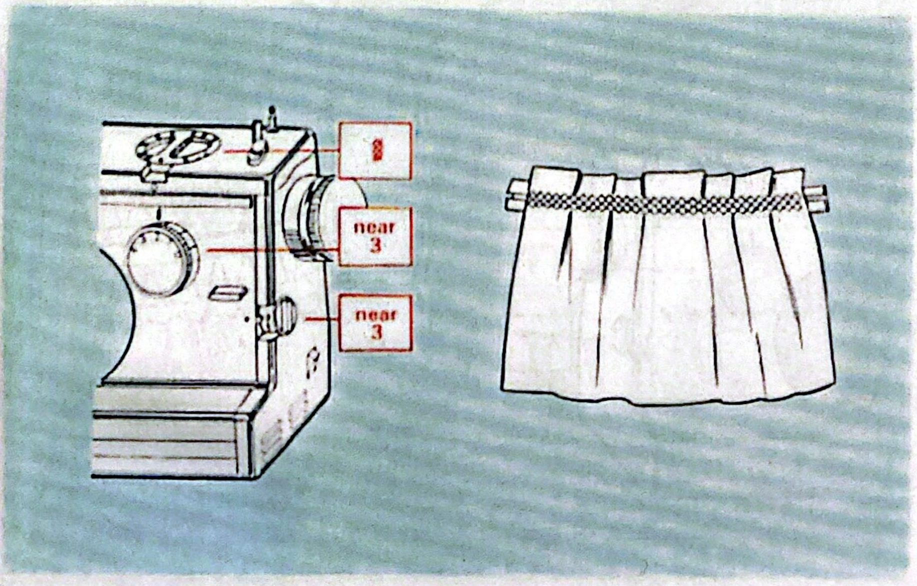
Smocking stretch stitching Cub 4 only

With a narrow strip of fabric directly under the line of gathering, stitch over the gathers. The design will be a series of small diamonds. Make the design more interesting by using two different colors of thread.

When smocking a garment, the stitching should be done before the piece is sewn into the garment.

Setting:

Special Stitch Selector: ⧖
Stitch Length Control: near 3
Stitch Width Control: near 3

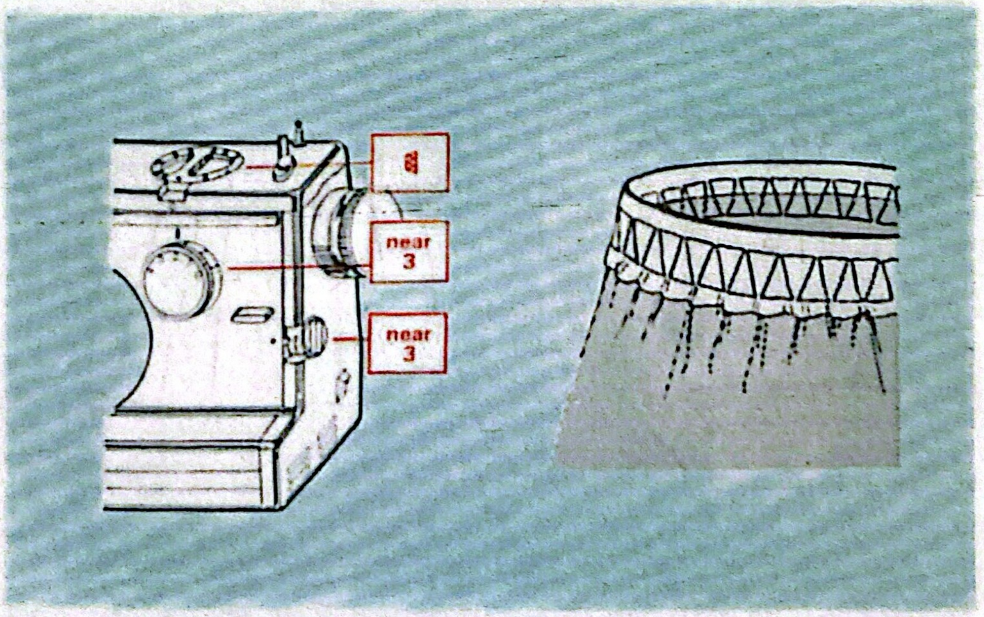


Elastic stretch stitching Cub 4 only

This is a good stitch to use in making or repairing lingerie. The stitch is decorative as well as useful. It has a lot of stretch to it and is strong as well. Simply stitch the elastic into place around the waist of the garment, making sure that the elastic is evenly distributed. To do this mark the correct length piece into quarters and match these marking with center front and back of garment as well as side seams.

Setting:

Special Stitch Selector: ▧
Stitch Length Control: near 3
Stitch Width Control: near 3



Removing lint

To insure the best possible operation of your machine, it is necessary to keep the essential parts clean at all times. Using a small brush, remove the lint that accumulates in the shuttle area and around the feed dogs.

To Clean the Shuttle Area:

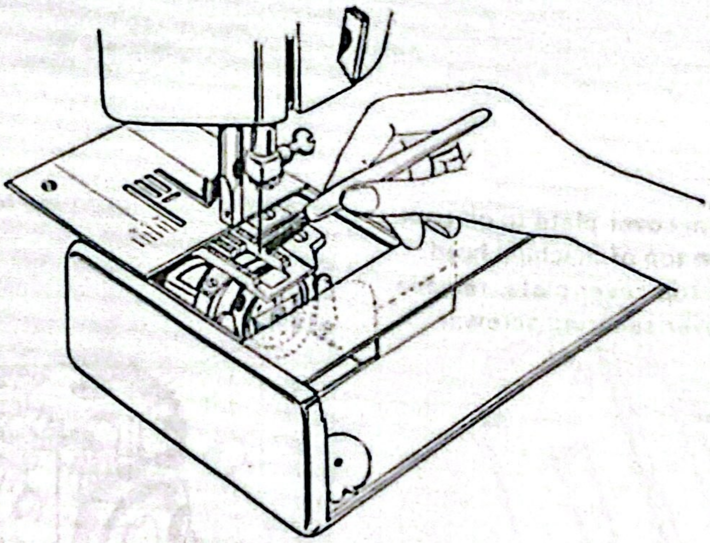
1. This area must be kept free of dust, lint and an occasional tangled thread. Raise the needle bar to its highest point and remove the bobbin case.

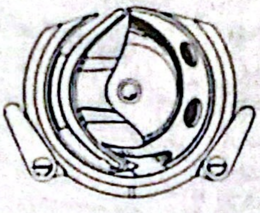
2. Push levers of shuttle race aside and lift hook ring and shuttle out.

3. Clean the shuttle race with small brush.

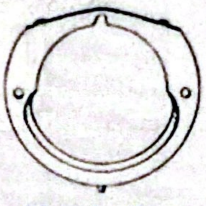
4. Put a drop of oil on the center pin of the shuttle and shuttle race. (see arrows)

5. To reassemble, hold shuttle by center pin and fit carefully into assembly opposite the shuttle driver. Slip shuttle race cover into place. Snap the levers into position.

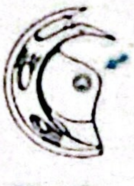




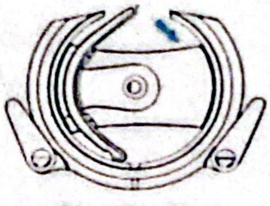
Shuttle Assembly



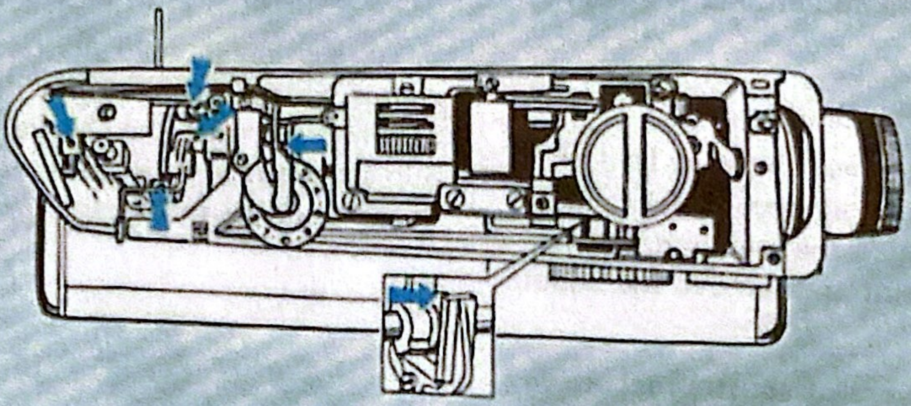
Shuttle Race Cover



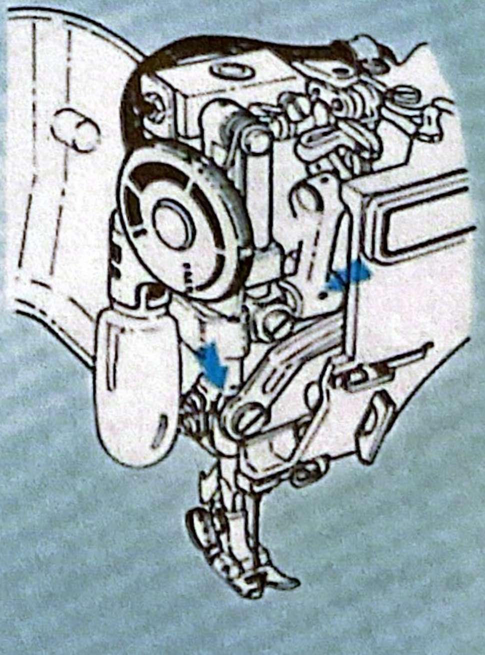
Shuttle

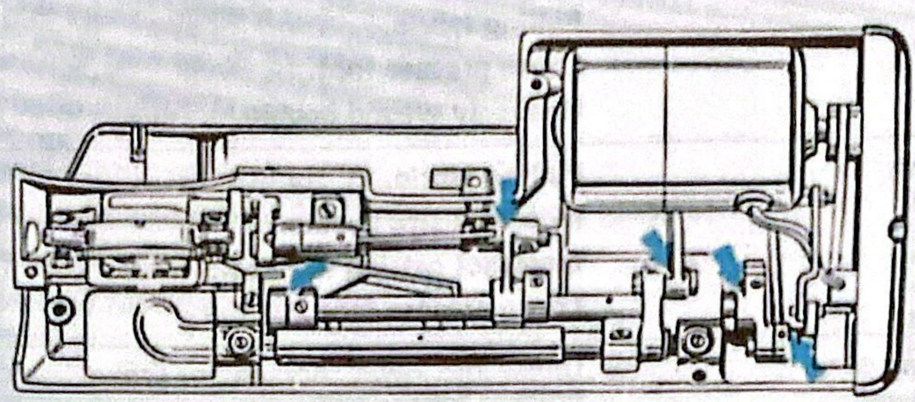


Shuttle Race



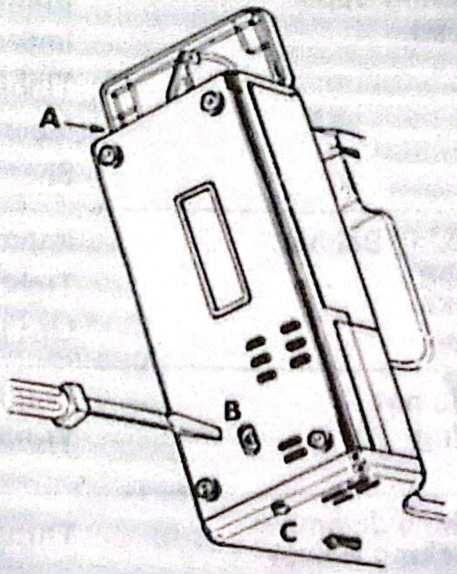
Remove arm cover plate to oil points indicated in top of machine head.
To remove top cover plate, remove two top cover securing screws.





Tilt machine head back and remove bottom cover to oil points indicated on underside of machine.

To remove bottom cover, remove screws (A), (B) and (C) as shown to your right.

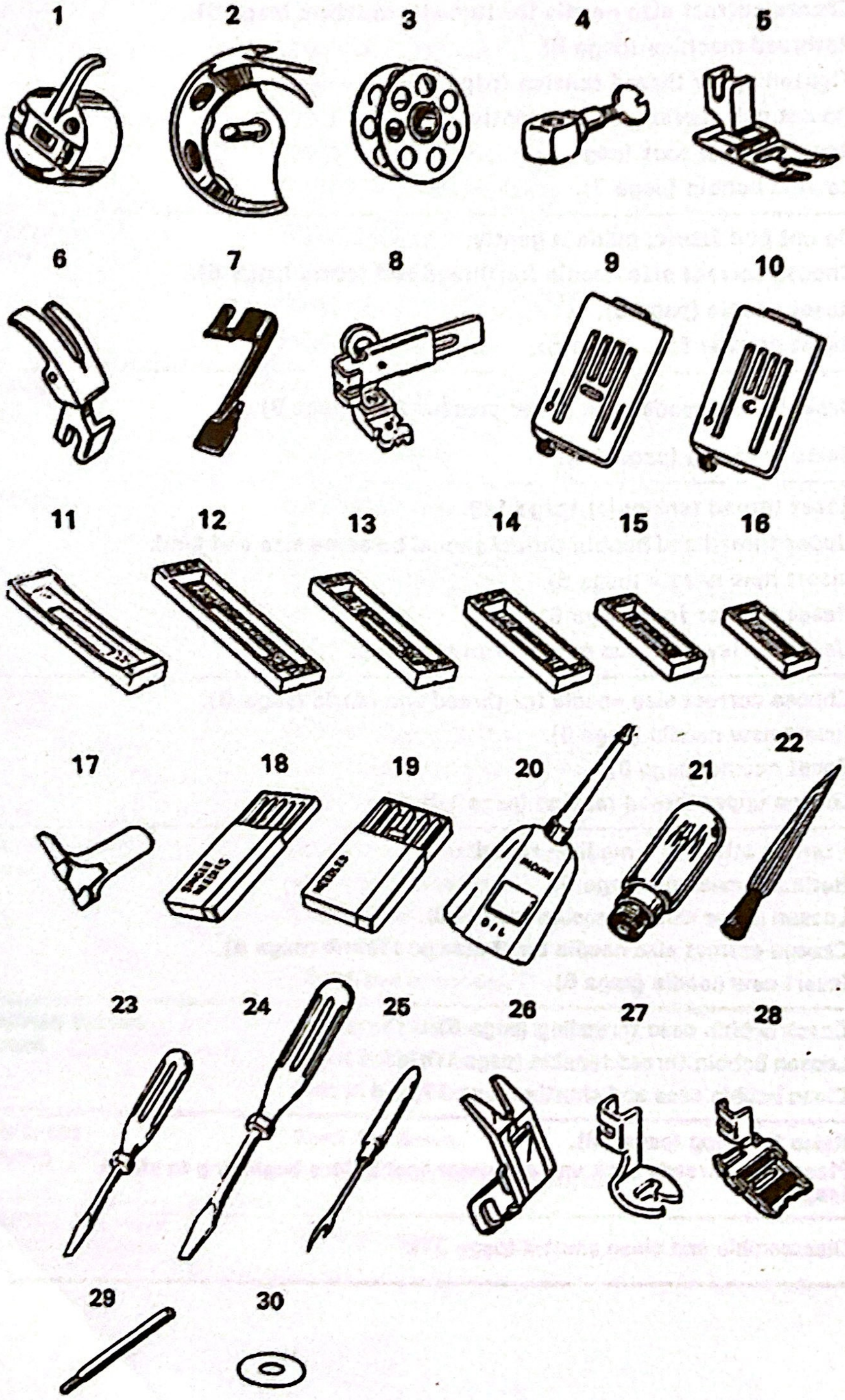


Fault findings

PROBLEM	PROBABLE CAUSE
Irregular Stitches	Incorrect size needle. Improper threading. Loose upper thread tension. Pulling fabric. Loose presser foot. Unevenly wound bobbin.
Breaking Needles	Pulling fabric. Incorrect size needle. Incorrect setting of needle. Loose presser foot.
Bunching of Thread	Upper and lower threads not drawn back under presser foot. Feed dog down.
Puckering	Incorrect thread tension(s). Using two different sizes of or kinds of thread. Bent or blunt needle. Loose presser foot. Fabric too sheer or too soft.
Skipping Stitches	Incorrect size needle. Bent or blunt needle. Incorrect setting of needle. Tight upper thread tension.
Breaking Upper Thread	Starting to stitch too fast. Improper threading. Tight upper thread tension. Incorrect size needle. Sharp eye in needle.
Breaking Bobbin Thread	Improper bobbin case threading. Tight bobbin thread tension. Lint in bobbin case or shuttle.
Fabric not Moving	Feed dog down. Threads knotted under fabric.
Machine Jamming (Knocking Noise)	Thread caught in shuttle.

CORRECTION
Choose correct size needle for thread and fabric (page 6). Rethread machine (page 9). Tighten upper thread tension (page 10). Do not pull fabric; guide it gently. Reset presser foot (page 5). Rewind bobbin (page 7).
Do not pull fabric; guide it gently. Choose correct size needle for thread and fabric (page 6). Reset needle (page 6). Reset presser foot (page 5).
Draw both threads back under presser foot (page 9). Raise feed dog (page 16).
Reset thread tension(s) (page 10). Upper thread and bobbin thread should be same size and kind. Insert new needle (page 6). Reset presser foot (page 5). Use underlay of tissue paper when stitching.
Choose correct size needle for thread and fabric (page 6). Insert new needle (page 6). Reset needle (page 6). Loosen upper thread tension (page 10).
Start to stitch at a medium speed. Rethread machine (page 9). Loosen upper thread tension (page 10). Choose correct size needle for thread and fabric (page 6). Insert new needle (page 6).
Check bobbin case threading (page 8). Loosen bobbin thread tension (page 10). Clean bobbin case and shuttle (page 37).
Raise feed dog (page 16). Place both threads back under presser foot before beginning to stitch (page 9).
Disassemble and clean shuttle (page 37).

Parts list



arts list

.ll parts listed here may be ordered
ırough our nearest agent.

Vhen ordering these parts, please be
ure to mention the following
əferences:

. Model & serial numbers of machine
hown on the nomenclature plate.

2. Parts number(s) and description(s)
shown below.

When ordering by mail, prices will be
furnished on request.

Ref. #	Part #	Description
1	13682	Bobbin case
2	47	Shuttle hook
3	183	Bobbin
4	26929	Needle clamp
5	40390	Standard zigzag foot
6	740	Straight stitch foot
7	34476	Blind stitch guide
8	33818	Zipper foot
9	38295	Needle plate insert (zigzag) (Cub 4 only)
10	38296	Needle plate insert (straight) (Cub 4 only)
11	40242	Buttonhole guide (standard) (Cub 3 only)
12	40234	Buttonhole guide (1 1/16) (Cub 4 only)
13	40233	Buttonhole guide (15/16) (Cub 4 only)
14	40232	Buttonhole guide (5/8) (Cub 4 only)
15	40231	Buttonhole guide (1/2) (Cub 4 only)
16	40230	Buttonhole guide (3/8) (Cub 4 only)
17	17160	Needle threader
18	39778	Needles (Cub 3 only)
19	39775	Needles (Cub 4 only)
20	1822	Oiler
21	17351	Light bulb
22	35848	Brush
23	1824	Driver (small)
24	1823	Driver (large)
25	16500	Buttonhole opener
26	34482	Stretch stitch foot (Cub 4 only)
27	614	Button sewing foot
28	28203	Roller foot (Cub 4 only)
29	8286	Extra spool pin
30	2273	Nylon disc